

NOTES, INFORMATION & NEWS

Lioconcha (Sulcilioconcha) caledonensis sp. nov., a Species of Veneridae (Bivalvia) from New Caledonia

Mary Ellen Harte
1180 Cragmont Ave, Berkeley, California 94708, USA
and
Kevin L. Lamprell
58 Marsden Road, Kallangur, Queensland 4503
Australia

Introduction

Careful re-examination of existing collections is sometimes the source of new taxa (Lamprell & Stanisc, 1996). Eight lots of specimens labelled *Lioconcha (Sulcilioconcha) melhartae* Lamprell & Stanisc, 1996, a venerid species recently described from New Caledonia and taken by extensive sampling programs conducted by the OR-STOM Institute in New Caledonia (Richer de Forges, 1990, 1991), were obtained from the Muséum National d'Histoire Naturelle, Paris. Some specimens differed from *L. (S.) melhartae* and are regarded as a new species, described here.

Materials and Methods

Examination and measurements were done using vernier dial calipers and a 10× magnifying piece. Photographs were prepared by K. Lamprell using a Nikon FM2 camera, SB-21 Nikon Speedlight, AF Micro-Nikkor 105 mm × f/2.8 lens and copy stand.

Abbreviations used in text: lv, left valve; rv, right valve; pv, paired valves, sta., sampling station of OR-STOM Institute in New Caledonia (Richer de Forges, 1990, 1991); MNHN, Muséum National d'Histoire Naturelle, Paris. Shell length is the greatest distance from anterior to posterior margins. Shell height is the greatest distance from the umbo to the ventral margin. Shell width is the greatest distance between the external surfaces of the conjoined left and right valves.

Systematics

The systematic arrangement at generic and subgeneric levels follows that of Keen (1969).

Genus *Lioconcha* Mörch, 1853

Type species: *Venus castrensis* Linnaeus, 1758; subsequent designation by Stoliczka (1870).

Subgenus *Sulcilioconcha* Habe, 1951

Type species: *Cytherea philippinarum* Hanley, 1844; original designation.

Lioconcha (Sulcilioconcha) caledonensis

Harte & Lamprell, sp. nov.

(Figures 1a-c, g-i.)

Description: Shell trigonally ovate, equivalve, inequilateral, moderately inflated, lightweight but sturdy, umbones prosogyrous, slightly inflated, lunule well developed, pear-shaped, raised centrally, striate, defined by a faint impressed line; antero-dorsal margin short, slightly convex dorsally, sharply sloping, widely rounded terminally; postero-dorsal margin slightly convex, sharply sloping, widely convex posteriorly; ventral margin widely convex, incised. Shell to 21 mm in length. Teleoconch smooth, changing to sculpture on the disc 4.2 mm down from the tip of the umbo of a specimen 17.1 mm in height. Shell with fine, distinct, flattened cords, merging to fine, indistinct threads posteriorly, and slightly anastomosing anteriorly before merging to fine, indistinct threads; interstices are narrow and shallow. Periostracum calcified, aragonitic, white. Hinge of lv with anterior lateral tooth well developed, knoblike, in height rising above the cardinal teeth from the plain of the hinge plate; anterior cardinal thin, oblique, joined to thick median cardinal forming an inverted v-shape; posterior cardinal long, ridgelike, separated from the median cardinal by a deep pit. Hinge of rv with paired anterior lateral teeth; anterior cardinal short, moderately thick, parallel to the median cardinal; median cardinal bifid, narrowly triangular; posterior cardinal bifid, elongate, oblique. Pallial line thin. Pallial sinus small, a slight sinuation at the base of the posterior adductor muscle scar. Exterior of shell white to creamy white, sometimes with sparse, obscure, irregularly spaced

Table 1

Dimensions of largest paratypes of *Lioconcha (Sulcilioconcha) caledonensis* in mm.

Valve(s)	Sampling station	Length	Height	Width
1 rv	1103	18.5	17.0	6.6
1 pv	1103	14.1	12.2	8.5
1 pv	1129	18.8	17.3	11.4
1 pv	1117	14.7	12.9	8.7



Figure 1a-c, g-i, d-f.

a-c, g-i. Holotype of *Lioconcha (Sulcilioconcha) caledonensis*, Harte & Lamprell, sp. nov. a. left valve, length 18.5 mm. b. interior of right valve. c. posterior view of conjoined valves, height 16.7 mm, width 11.8 mm. g. interior of left valve. h. right hinge. i. left hinge. d-f. *Lioconcha (Sulcilioconcha) melhartae*, Lamprell Collection. d. left valve, length 20.5 mm. e. interior of right valve. f. posterior view of conjoined valves, height 17.7 mm, width 13.4 mm.

Table 2

Conchological comparison of *Lioconcha (Sulcilioconcha) caledonensis* and *L. (S.) melharteeae*.

Character	<i>L. caledonensis</i>	<i>L. melharteeae</i>
Posterior sculpture	commarginal; threads merge and become indistinct. (Figure 1c)	often not commarginal but oblique; threads anastomose and remain distinct. (Figure 1f)
Color pattern	irregular, faint, sparse, zigzag markings; escutcheon and lunule not colored.	a solid posterior radial; occasional commarginal bands; escutcheon and lunule colored.
Umbones	slightly inflated (Figure 1c)	inflated (Figure 1f)
Posterior shape	slightly more angular	convex
Anterior lateral tooth (right valve)	rises above the cardinal teeth from the hinge plane	lower than the cardinal teeth
Early teleconch	smooth	sculptured

and scaped lines and small triangles; internal color white or cream.

Type material: Holotype: MNHN; Nouvelle-Calédonie, Secteur des Belep: 1 pv, sta. 1103, 32 m, 19°43'S, 163°57'E, white muddy sand with oyster shells. B. Richer-ORSTOM coll. 25 October 1989. Dimensions of holotype: length 18.5 mm, height 16.7 mm, width of conjoined valves 11.8 mm. Paratypes: MNHN; Nouvelle-Calédonie, Secteur des Belep: 2 pv, 2 rv, 1 lv same data as holotype; 7 pv (+ 1 pv Australian Museum Sydney, AMS C312630), sta. 1129, 40 m, 19°29'S, 163°49'E; 5 pv, sta. 1117, 36 m, 19°38'S, 163°54'E; Lagon Nord: 1 pv, sta. 484, 35 m, 19°00'S, 163°35'E; 2 pv, sta. 517, 42 m, 19°09'S, 163°35'E; 4 pv, sta. 522, 42 m, 19°08'S, 163°38'E. For dimensions of some paratypes, see Table 1.

Distribution: Specimens of this species are known only from the Belep Islands of New Caledonia ranging from 12°29'S, 163°49'E to 19°43'S, 163°57'E in depths between 32 and 42 m. Sampling station environments include sta. 1103 (see holotype, above); for sta. 1117, coarse, muddy sand with turrillid shells; and for sta. 1129, white, coarse, shelly sand, with *Amusium*.

Remarks: This species is most similar to *Lioconcha (Sulcilioconcha) melharteeae* Lamprell & Stanisc, 1996. Several conchological characters distinguish *Lioconcha caledonensis* from *L. melharteeae* (Table 2; Figure 1a–f) and the other species within *Sulcilioconcha*. *Lioconcha caledonensis* has flattened ribs with shallower interstices and is often less colored than *L. (S.) philippinarum* (Hanley, 1844) or *L. (S.) amirantium* (Melville, 1909), an Indian Ocean species very similar to *L. philippinarum*; the latter two species have rounded ribs and are often colored brown on the shell, escutcheon, and lunule. *Lioconcha (Sulcilioconcha) richerdeforgesi* Lamprell & Stanisc, 1996, is less trigonal with less inflated umbones, more color patterns and narrower ribs, and generally smaller than *L. caledonensis*. *Lioconcha (Sulcilioconcha) dautzenbergi* (Prasad, 1932) is creamier in col-

or, heavily patterned, and has much wider, rounded ribs. Both *Lioconcha (Sulcilioconcha) trimaculata* (Lamarck, 1818) and *Lioconcha (Sulcilioconcha) polita* (Röding, 1798) are more ovate in shape, and more heavily patterned and colored, with colored lunules and escutcheons, and purple or brown colors internally; *L. polita* is smooth centrally.

Literature Cited

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- LAMPRELL, K. L. & J. STANISC. 1996. *Callista, Lioconcha* and *Pitar* in New Caledonia and adjacent waters (Mollusca, Veneridae). *Molluscan Research* 17:27–48.
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International Commission on Zoological Nomenclature

The following Application was published on 30 September 1998 in Volume 55, Part 3 of the *Bulletin of Zoological Nomenclature*. Comment or advice on this application is invited for publication in the *Bulletin* and should be sent to the Executive secretary, I. C. Z. N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3087—*Hydrobia* Hartmann, 1821 and *Cyclostoma acutem* Draparnaud, 1805 (currently *Hydrobia acuta*; Mollusca, Gastropoda): proposed conservation by replacement of the lectotype of *H. acuta* with a neotype; *Ventrosa* Radoman, 1877: proposed designation of *Turbo ventrosus* Montagu, 1803 as the type species; and HYDROBIINA Mulsant, 1844 (Insecta, Coleoptera): proposed emendation of spelling to HYDROBIUSINA, so removing the homonymy with HYDROBIIDAE Troschel, 1857 (Mollusca).

The following Opinion concerning mollusks was published on 30 September 1998 in Volume 55, Part 3 of the *Bulletin of Zoological Nomenclature*. Copies of this Opinion can be obtained free of charge from the Executive Secretary at the address given above.

Opinion 1905. S. D. Kaicher (1973–1992), *Card Catalogue of World Wide Shells*: not suppressed for nomenclature purposes.